

## **3.2 Reliability Assurance Program**

### **1.0 Description**

The Reliability Assurance Program (RAP) is implemented as an integral part of the design process and is implemented during the detailed design phase prior to initial fuel load. The RAP evaluates and sets priorities for the structures, systems and components (SSC) in the design, based on their degree of risk significance.

The objective of the RAP is to provide reasonable assurance that risk-significant SSC are designed such that: (1) assumptions from the risk analysis are maintained, (2) SSC when challenged, function in accordance with the assumed reliability, (3) SSC whose failure could result in a reactor trip, function in accordance with the assumed reliability, and (4) maintenance actions to achieve the assumed reliability are identified.

### **2.0 Design Features**

2.1 The RAP provides reasonable assurance that the plant is designed and will be constructed in a manner that is consistent with the key assumptions and risk insights for risk-significant SSC.

### **3.0 Inspections, Tests, Analyses, and Acceptance Criteria**

Table 3.2-1 lists the RAP ITAAC.

**Table 3.2-1—Reliability Assurance Program ITAAC**

	<b>Commitment Wording</b>	<b>Inspections, Tests, Analyses</b>	<b>Acceptance Criteria</b>
2.1	The RAP provides reasonable assurance that the plant is designed and will be constructed in a manner that is consistent with the key assumptions and risk insights for risk-significant SSC.	An analysis will confirm the adequacy of the RAP.	<p>A report exists and concludes that the RAP includes the following three (3) major elements:</p> <ul style="list-style-type: none"> <li>• Identification of all SSC in the scope of the plant-specific RAP.</li> <li>• Description of the methodology used to identify the SSC in scope of the plant-specific RAP.</li> <li>• For the SSC in scope of RAP, identify and describe the reliability assurance activities that are accomplished prior to the initial fuel load, which provide reasonable assurance that the plant is designed and constructed in a manner that is consistent with the key assumptions (including reliability and availability assumptions in probabilistic risk assessment when applicable) and risk insights for the risk-significant SSC.</li> </ul>